REMARKS

Applicant gratefully acknowledges the allowance of claims 111, 112, and 114-125. Claims 126, 136, 143, 148, and 157 have been amended. No new matter has been introduced. Claim 142 has been canceled in this paper because its subject matter has been incorporated into claim 136. Claims 111, 112, 114-141, 143-158 and 160-163 are pending in this application. Applicant reserves the right to pursue the original claims and other claims in this and other applications.

Claims 126-163 stand rejected under 35 U.S.C. § 102 as being anticipated by Lou (U.S. Patent No. 6,235,579) ("Lou"). This rejection is respectfully traversed.

Claim 126 recites a "memory cell" comprising "a transistor including a gate," "a capacitor including an electrode" and "a metal-polysilicon structure . . . comprising a polysilicon layer formed over said substrate; a barrier layer formed over said polysilicon layer." Claim 126 also recites "at least one conductive layer formed over said barrier layer in an opening of an insulating layer, said conductive layer having at least one vertically extending surface in said opening" and "at least one layer capable of absorbing oxygen formed adjacent to said conductive layer." Applicant respectfully submits that Lou fails to disclose the claim 126 invention.

Lou relates to a "method of manufacturing a stacked capacitor." (Abstract). Lou teaches that "[a] first dielectric layer is formed over a substrate," and "[a] first nitride layer is formed on the first dielectric layer" so that "[a] storage node contact hole is formed to penetrate through the first nitride layer and the first dielectric layer and to expose a portion of the substrate." (Abstract). Lou further teaches that "[a] first conductive plug is formed in the storage node contact hole" and "[a] second dielectric layer is formed on the first nitride layer and the first conductive plug." (Abstract). Once "[a] contact hole is formed to penetrate through the second nitride layer and the

second dielectric layer and to expose portions of the first conductive plug," Lou teaches that "[a] second conductive plug is formed in the contact hole with a surface level lower than a surface level of the second nitride layer." (Abstract).

Lou is silent with respect to, and thus does not disclose, a "metal-polysilicon contact" comprising "a polysilicon layer provided over a substrate," "a barrier layer formed over said polysilicon layer" and "at least one conductive layer formed over said barrier layer *in an opening of an insulating layer, said conductive layer having at least one vertically extending surface in said opening.*" The features are simply not taught by Lou. In Lou, by contrast, metal layer 218, which would arguably correspond to the "conductive layer" of the claimed invention, is not formed "in an opening of an insulating layer, [where] said conductive layer [has] at least one vertically extending surface in said opening." Instead Lou's metal layer 218 is formed completely above the insulating layer, on top of the barrier layer 216. There is not an opening in the insulating layer in which the metal layer 218 is formed. As such, claim 126 is allowable over Lou. Claims 127-135 depend from claim 126 and are allowable along with claim 126.

Claim 136 recites a "metal-polysilicon contact" comprising "a polysilicon layer," "a barrier layer formed over said polysilicon layer" and "at least one conductive layer formed over said barrier layer in an opening of an insulating layer, said conductive layer having at least one vertically extending surface in said opening." Claim 136 also recites "at least one oxygen sink layer formed adjacent to said conductive layer, said oxygen sink layer being at least partially oxidized." Accordingly, Applicant respectfully submits that claim 136 is allowable over Lou for at least the reasons set forth above. Claims 137-141 and 143-147 depend from claim 136 and are allowable along with claim 136.

Claim 148 recites a "memory cell" comprising "a transistor including a gate," "a capacitor including an electrode" and "a metal-polysilicon structure . . . comprising a polysilicon layer formed over said substrate; a barrier layer formed over said polysilicon layer." Claim 148 also recites "at least one conductive layer formed over said barrier layer in an opening of an insulating layer, said conductive layer having at least one vertically extending surface in said opening" and "at least one oxygen sink layer formed adjacent to said conductive layer, said at least one oxygen sink layer being at least partially oxidized." Accordingly, Applicant respectfully submits that claim 148 is allowable over Lou for at least the reasons set forth above. Claims 149-156 depend from claim 148 and are allowable along with claim 148.

Claim 157 recites a "metal-polysilicon contact" comprising "a polysilicon layer provided over a substrate," "a barrier layer formed over said polysilicon layer" and "at least one conductive layer formed over said barrier layer in an opening of an insulating layer, said conductive layer having at least one vertically extending surface in said opening, wherein said conductive layer is made of a material which is conductive when oxidized." Claim 157 also recites "at least one oxygen sink layer formed adjacent to said conductive layer, said at least one oxygen sink layer being capable of absorbing oxygen to slow down an oxygen front from reaching said at least one conductive layer." Accordingly, Applicant respectfully submits that claim 157 is allowable over Lou for at least the reasons set forth above. Claims 158 and 160-163 depend from claim 157 and are allowable along with claim 157.

Accordingly, Applicant respectfully submits that the rejection should be withdrawn and claims 126-141, 143-158 and 160-163 allowed. In view of the above amendment, Applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

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